

REMARKS/ARGUMENTS

The Final Rejection dated September 18, 2007 and the Advisory Action dated January 2, 2008 have been carefully considered. Claims 10-18 are pending in the application, with claim 10 being the only independent claim. Claims 10 and 16 have been amended. Reconsideration of the application, as herein amended and in view of the following remarks, is respectfully requested.

Rejection under 35 U.S.C. 112, Second Paragraph

Claim 16 stands rejected under 35 U.S.C. 112, second paragraph, because of an alleged informality therein.

Claim 16 has been amended to address the informality noted in the Office Action. In view of this self-explanatory amendment, withdrawal of the rejection under 35 U.S.C. 112, second paragraph, of claim 16 is respectfully requested.

Rejection of the Claims over Prior Art

Claims 10-12, 17 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,876,765 (*Karita*).

Claims 13, 14 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Karita* in view of U.S. Patent No. 3,105,272 (*Tucker*).

Claims 13-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Karita* in view of U.S. Patent No. 5,070,575 (*Redman*).

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief description of the subject matter described in the present application is deemed appropriate to facilitate understanding of the following arguments for patentability. The description is not meant to argue unclaimed subject matter.

The present application discloses a stabilizing arrangement for a drive carriage of a sliding door which is movable by a linear drive and the sliding leaf is suspended by magnetic forces. According to an embodiment of the present invention, the linear drive 1 includes a stationary guide rail 3 which is mounted in a holder 2 and a guide carriage 4 which is displaceable in the guide rail 3 (see paragraph [0017]; and Fig. 1 of the application as originally filed). The guide rail has C-shaped slide rails 6 which are spaced apart with their open sides facing away from one another (see paragraph [0018]; and Fig. 1). A portion of the guide carriage 4 is located between the slide rails 6 and coils 7 are arranged on oppositely facing open sides of the C-shaped slide rails 6 (see paragraph [0018]; and Fig. 1). A sliding door 5 is connected to the guide carriage 4 (see, e.g., Figs. 10-13) so that the sliding door 5 is movable in the direction of the guide rail 3.

The guide carriage 4 includes a supporting rail 10 connected to a holding member 12 (see paragraph [0019], and Fig. 2). The magnets 13 and the coils 7 form a holder and a drive for the sliding door 5 (see paragraph [0019]).

Independent claim 10 is amended to clarify that the stator arrangement includes coils and that the same magnets and coils produce both the suspension force and the linear drive force and now recites, *inter alia*, the following:

“a plurality of permanent magnets fixed to said guide carriage, said permanent magnets and said coils form a holder and a linear drive for the door leaf so that the guide carriage can be suspended and driven along said guide track by magnetic forces between said coils and said magnets”.

Support for this amendment is found at claim [0019] of the application as filed. According to amended claim 10, the same magnets and coils that suspend the door, also form the linear drive.

Applicant respectfully submits that claim 10 is not anticipated by *Karita* because *Karita* fails to disclose, either expressly or inherently, each and every element as set forth in claim 10.

In particular, *Karita* fails to disclose or teach using a single combination of coils and magnets to form both a suspension mechanism and a linear drive for the door.

As explained in the last-filed Amendment, *Karita* relates to a door movable between a closed position and an open position with respect to a stationary structure, and a support device for supporting the door (*see* the Abstract of *Karita*). The Examiner relies on the teaching of the first embodiment of *Karita* when rejecting claim 10. In that embodiment, the door 101 is attached to a plate member 114 which is in turn movably supported on an elongated guide member 105 by rollers 121. The guide member 105 is made of a magnetic material. Two permanent magnets 131, 132 are mounted on the plate member 114, facing the guide member 105. The magnets 131, 132 produce magnetic attractive forces exerted on the guide member 105 to support at least part of the weight of the door 101. A traveling magnetic field-generating unit 142 is fixedly mounted on the plate member 114. The unit 142 includes a yoke 144 having a plurality of magnetic pole portions 146 around which coils 147 are wound. A plate member 141 of a non-magnetic conductive material is mounted on the guide member 105, facing the coils 147. When energized, the coils 147 cooperate with the plate member 141 to form a linear drive for the door 101. *See* Figs. 4 and 5; col. 3, line 64 to col. 4, line 15; and col. 4, lines 16-45 of *Karita*.

On page 5 of the Office Action, the Examiner contends that the linear drive of *Karita* comprises the plate member 141, the magnets 131, 132 and the unit 142. Even if that is true, *Karita* fails to disclose “a plurality of permanent magnets fixed to said guide carriage, said permanent magnets and said coils form a holder and a linear drive for the door leaf so that the guide carriage can be suspended and driven along said guide track by magnetic forces between said coils and said magnets”, because *Karita* discloses two different sets of magnets and coils for respectively forming the two different functions of suspension and linear drive.

As explained above, in *Karita* the magnets 131, 132 are used to produce magnetic attractive forces exerted on the guide member 105 to support at least part of the weight of the door 101. The magnets 131, 132 are not part of the linear drive because they contribute nothing to the linear moving force. Moreover, the plate member 141 is not part of the door suspension mechanism because it contributes nothing to the magnetic attractive forces exerted on the guide member 105 to support at least part of the weight of the door 101.

Thus, *Karita* fails to teach or suggest using a single combination of coils and magnets to form both a suspension mechanism and a linear drive for the door, as expressly recited in independent claim 1. Rather, *Karita* explicitly teaches using one set of a stator arrangement and magnets (i.e., the guide member 105 and the magnets 131, 132) to form a suspension mechanism for the door 101, and another set of a stator arrangement and magnets (i.e., the plate member 141 and the coils 147) to form a linear drive for the door 101. Therefore, *Karita* fails to disclose or teach the limitations “a plurality of permanent magnets fixed to said guide carriage, said permanent magnets and said coils form a holder and a linear drive for the door leaf so that the guide carriage can be suspended and driven along said guide track by magnetic forces between said coils and said magnets”, as now expressly recited in independent claim 10 of the present application.

In view of these differences, withdrawal of the 35 U.S.C. 102(b) rejection of claim 10 is respectfully requested.

Using a single combination of coils and magnets to form both a suspension mechanism and a linear drive simplifies the structure and reduces the costs of the linear drive arrangement. Thus, applicant respectfully submits that the above-discussed fundamental differences between

amended claim 10 and *Karita* clearly and patentably distinguish amended claim 10 thereover under 35 U.S.C. 103(a).

Dependent Claims 11-18

Dependent claims 11-18 are allowable for at least the same reasons that independent claim 10 is allowable, as well as for the additional limitations recited therein.

In particular, it is noted that in *Karita*, the rollers 121 roll on the guide member 105 during the entire movement of the plate member 114/the door 101. Therefore, contrary to the Examiner's interpretation, *Karita* fails to disclose or teach the limitations "wherein the at least one supporting roller rolls on the guide track only as movement of the guide carriage begins and ends" (emphasis) of claim 18. Note the wording "only" in claim 18 clearly requires that the at least one supporting roller does not roll on the guide track between the beginning and ending movements of the carriage.

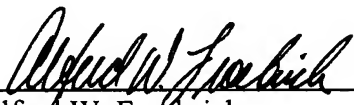
Conclusion

In view of the foregoing, the application is now deemed to be in condition for allowance and notice to that effect is respectfully solicited.

Respectfully submitted,

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